

FOX RIVER *CURRENT*

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Update from the Lower Fox River Intergovernmental Partnership

Fox River Pilot Projects Wind Down

By Greg Swanson, Wisconsin Department of Natural Resources

Dredging activity at the Deposit N pilot project near Kimberly was completed ahead of schedule in late October, giving the Department of Natural Resources (DNR) and its contractor an opportunity to remove, treat and dispose of additional polychlorinated biphenyl (PCB)-contaminated sediment from the nearby Deposit O.

Bill Fitzpatrick, Wisconsin DNR project manager explained, "Since we completed the Deposit N project under budget, we decided to use the remaining funds to work on Deposit O right across the river." Fitzpatrick added, "The Deposit N/O project has been an outstanding success. Significant amounts of PCBs have been removed from the river and from the food chain for good."

Approximately 7,500 cubic yards of contaminated sediment was removed from Deposit N, with an additional 1,000 cubic yards removed from Deposit O. The Deposit N/O project provided valuable insights on local support for the cleanup, the cost of disposal and the effectiveness of dredging and removal as a cleanup method.

Dredging efforts in Sediment Management Unit (SMU) 56/57 concluded in early December. Although ongoing difficulties with the dredging work prevented the removal of the anticipated 80,000 cubic yards of contaminated sediment; approximately 30,000 yards were dredged from the site. Bob Behrens, DNR project manager for the SMU 56/57 project, explained, "We never reached the dredging amount we hoped to. But, I think we have enough data to get the answers we wanted." The nine-acre SMU 56/57 is located approximately three miles downstream from the DePere Dam and is the location of some of the highest concentrations of PCBs in the Lower Fox River.

Interim reports on the results from the pilot projects are the next step in incorporating the data developed from them into the Remedial Investigation and Feasibility Study (RI/FS).

In other related activities, the U.S. Environmental Protection Agency (EPA) has awarded DNR a supplemental grant of \$1.5 million to allow additional time and opportunity to respond to public comments on the RI/FS, to incorporate new data on PCB concentrations in sediment, water, fish and birds and, most significantly, add Green Bay into the RI/FS report. The grant supports an expansion of the work on the RI/FS to include a complete remedial investigation, a feasibility study with alternative evaluations and a risk assessment for both human and ecological health for the entire bay of Green Bay. Previous grant agreements with EPA have covered a majority of the RI/FS work for the 39-mile stretch of the Lower Fox River from Lake Winnebago to Green Bay.

Peer Review Study Available

By Susan Pastor, U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has sent a new report for public review to the information repositories in the Fox Valley area.

The report, called a Peer Review Study, consists of two, independent reviews on the draft Remedial Investigation and Feasibility Study (RI/FS) for the Lower Fox River. Experts independently selected by an EPA contractor in September 1998 did the reviews. The study established two technical panels to review components of the draft RI/FS. The first panel consisted of experts in Superfund data evaluation and decision making. A second panel was comprised of experts in natural recovery and the behavior of toxic chemicals.

See Peer Review, page 3

Region 5 Boasts Many River Successes

By Susan Pastor, U.S. Environmental Protection Agency

Although the U.S. Environmental Protection Agency (EPA) is a relative newcomer to the Lower Fox River scene, it is not a newcomer to the business of cleaning up contaminated waterways.

EPA's Region 5 office, located in Chicago, has been involved in the investigation and/or cleanup of over 25 sediment sites under the Superfund program. Region 5, which covers Wisconsin, Ohio, Illinois, Indiana, Minnesota, and Michigan, has cleaned up waters contaminated with polychlorinated biphenyls (PCBs), heavy metals, polyaromatic hydrocarbons (PAHs) and DDT. Some of them were cleaned up after being named to EPA's National Priorities List (NPL) of hazardous waste sites while others were addressed without being placed on the NPL.

One of the Region's most notable achievements is the Manistique River and Harbor in Michigan. This project involved the investigation and cleanup of PCBs caused by the Manistique Paper Company's contaminant disposal directly into the river and harbor. According to EPA Remedial Project Manager Jim Hahnenberg, "This project has overcome some difficult challenges and is now seeing very good environmental results." Five years and \$36 million later, the citizens of Manistique can boast that their river has lower PCB concentrations and can look forward to even better results as this project nears completion. "And, future projects in other areas will also benefit greatly from the 'lessons learned' on Manistique," Hahnenberg added.

Another successful cleanup is the Waukegan Harbor on Lake Michigan in northern Illinois. Waukegan Harbor was contaminated with PCBs caused by the disposal practices of nearby Outboard Marine Company facility. Since Waukegan Harbor is located along the shore of Lake Michigan about 25 miles north of Chicago, EPA was especially concerned about dangerously high PCB concentrations. As a result, this cleanup entailed the removal of both highly contaminated soil and harbor sediment. The most highly contaminated material was treated on site and less contaminated sediment was disposed of at a secured, confined disposal facility on the

site. An unanticipated benefit was that PCB concentrations in fish declined faster than expected after dredging removed large amounts of PCBs from the harbor.

Although the cleanup has not been completed, the Sheboygan River and Harbor had a successful demonstration project in 1991. To facilitate studying this complicated water system, Tecumseh Products Company, one of the companies responsible for the river's PCB contamination, agreed to remove the highest pockets of PCB-contaminated sediment by dredging and storing it in a large tank in Sheboygan Falls called a confined treatment facility (CTF). Various types of sediment treatment strategies were also tested, but were ineffective. This project provided a great deal of information about possible cleanup technologies while a large part of the highest concentrations of PCBs were removed from the Sheboygan River.

Other river cleanups include the Allied Paper/Bryant Mill Pond/Kalamazoo River and the Pine River/Velsicol Site in Michigan, and Fraleigh Creek in Ohio. Further information on these projects can be obtained by contacting Jim Hahnenberg at 1-800-621-8431 ext. 34213, or through the Region 5 web site at www.epa.gov/region5/sites.

Fox River Puzzler: Are PCBs a threat to wildlife and fish?

By Dave Crehore, Wisconsin Department of Natural Resources

Yes. In Green Bay and other areas of the Great Lakes, PCBs are linked to death, reproductive trouble, and deformities in fish-eating birds, and cause liver tumors in walleyes. Specifically:

- PCB contamination of Forster's terns nesting on Green Bay is strongly linked to deformities in young

See Puzzler, page 7

Out and About....

By Susan Pastor, U.S. Environmental Protection Agency

The Fox River Intergovernmental Partnership, made up of the U.S. Environmental Protection Agency (EPA), Wisconsin Department of Natural Resources (DNR), U.S. Fish and Wildlife Service (FWS), National Oceanic and Atmospheric Administration (NOAA), Oneida Tribe of Indians of Wisconsin, and Menominee Indian Tribe of Wisconsin, regularly provides speakers to organizations in the Fox Valley area. The following partners recently made presentations:

June

- ◆ Jim Hahnenberg, EPA: Paper, Allied Industrial, Chemical and Energy Workers International Union AFL-CIO, Milwaukee; general Lower Fox River update.

July

- ◆ Bruce Baker, Ed Lynch and Bob Paulson, DNR: Steering Committee of Municipal Partners, Neenah; general Lower Fox River update.

September

- ◆ George Meyer, DNR: Winnebago County Board, Oshkosh; Fox River Recreation Corridor, disposal at Winnebago County Landfill, and general Lower Fox River update.
- ◆ Jim Hahnenberg, EPA: National Research Council, Green Bay; natural recovery, other EPA dredging projects and general Lower Fox River update.

November

- ◆ Bruce Baker and Ed Lynch, DNR: Women in the Environment, Madison; general Lower Fox River update.
- ◆ Bob Paulson, DNR: Department of Administration State Risk Management Conference, Madison; general Lower Fox River update.
- ◆ George Boronow, DNR: DePere Optimist Club, DePere; general Lower Fox River update.

December

- ◆ Jim Hahnenberg, EPA: Weyauwega-Fremont School eighth grade class, Fremont; general Lower Fox River update.

Fox River Cleanup Speakers Available

By Corinne Billings, Wisconsin Department of Natural Resources

The Fox River Intergovernmental Partnership staff is available to speak to interested community groups, organizations, or schools. Staff speakers can provide information on a variety of topics related to the cleanup including the cleanup process itself, general Fox River issues, natural resources damage assessments, ecological and human health issues, and risk assessments.

Public input and understanding is a key factor in choosing the best cleanup plan. If your group, organization, or school is interested in learning more about the Lower Fox River cleanup project, please contact any of the following people to arrange for a speaker. We look forward to meeting with you!

Bri Bill, U.S. EPA, bill.briana@epa.gov, (312) 353-6646 or 1-800-621-8431 ext. 36646

Greg Swanson, Wisconsin DNR, swansg@dnr.state.wi.us, (608) 264-6024

Joan Guilfoyle, U.S. FWS, joan_guilfoyle@fws.gov, (612) 713-5311

Peer Review from page 1

The information contained in the report will be used for conducting two more peer reviews when the RI/FS is nearly completed, according to William Muno, EPA Superfund Division director. "We are very glad to have had this opportunity to review the peer reports," he said. "They have provided us with some good information that will be useful when completing the RI/FS and for developing a final cleanup plan."

The Peer Review Study and the EPA summary of the reports can also be found on EPA's Fox River web site: www.epa.gov/region5/foxriver.

Profile on . . . Ed Lynch

By Greg Swanson, Wisconsin Department of Natural Resources

Ed Lynch knows from his experience running marathons that successful attainment of a goal is the result of dedication and hard work that is not accomplished overnight. His goal as the Wisconsin Department of Natural Resources project manager for the Lower Fox River and Green Bay Remedial Investigation and Feasibility Study (RI/FS) is to make sure that the proposed cleanup plan for the Lower Fox River protects both human health and the environment.

Ed spent his early years in northern California, but moved with his family to Wisconsin while in junior high school. After graduating from high school, Ed attended the University of Wisconsin (UW) in Madison, graduating with a bachelor's degree in Civil and Environmental Engineering in 1978. The UW experience also made him and his wife Terri permanent residents of Madison, and lifelong Badger fans.

Shortly after graduating from college, Ed joined the DNR. During his 20 plus years with the DNR, Ed worked in the wastewater program for five years, the hazardous waste program for a dozen years, and, most recently, in the Bureau of Remediation and Redevelopment as assistant bureau director. While working in the hazardous waste area, Ed participated in the development and implementation of the rules covering licensing, remediation, inspection, and enforcement at hazardous waste sites. In early 1997, Ed took on a special assignment with the Fox River team and later that year was assigned as the project manager for the RI/FS. In this role, Ed is responsible for overseeing much of the day to day activity among DNR staff and consultants necessary to keep the RI/FS project moving toward the completion of the draft RI/FS and draft proposed plan in late spring 2000. As if these responsibilities weren't enough, Ed has also been serving as the DNR's Y2K internal project manager, another task that requires a considerable amount of his time.



Ed Lynch

When asked what his involvement in the Fox River project means to him, Ed said, "This project is a significant challenge, both in terms of technical issues and in coordination of interactions between all the parties involved. At the DNR alone, there are many knowledgeable people who have a very high level of commitment to completing the RI/FS project and moving ahead." He went on to say, "There is a fantastic amount of data and information that has been collected over a number of years on the Lower Fox River and Green Bay that is being utilized in the RI/FS."

In summing up the important role of the RI/FS, Ed noted that by following Superfund guidance, all of the parties involved should understand the process being used and how the results of the RI/FS are determined. He added, "In addition to the internal DNR team, the U.S. Environmental Protection Agency (EPA) is another key participant in the development of the RI/FS. The EPA is providing the DNR with resources to conduct the RI/FS and frequent DNR and EPA communication is vital to the success of the project." He concluded, "We believe that successful completion of the RI/FS will ultimately lead to a cleanup plan that will be protective of human health and the environment."

As for running marathons, Ed has competed in a number of the big races, including the 100th running of the Boston Marathon and the inaugural Fox Cities Marathon. An achilles tendon injury has kept him away from running lately, but he hopes to be back in stride soon.

Tell Us What You Think!

The Fox River Current staff is interested in what you like about the Fox River Current, what you don't like, and how you think the newsletter can be improved to meet your needs. Please take a few minutes to answer the questions below and return this prepaid questionnaire to us.

What do you like or dislike about the Current? _____

Do you read the whole newsletter? If not, why not? _____

Do the articles provide you the information you are looking for? If not, why not? _____

Please check one of the following: The articles are... __ too simple, __ just right, __ too technical.

Should we continue the "Profile on...." featuring Fox River government staff working on the Fox River cleanup? If so, who would you like to see featured in future issues of the Current? _____

Please suggest topics for future articles: _____

Other comments: _____

Do you know of a friend or neighbor who would like to receive the Current?

Name _____

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Thank you!

Name and Address: (optional)

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Address _____

City _____ State _____ Zip _____

Comment Sheet

Please detach, fold, seal, and mail

From _____

Ms. Bri Bill
Community Involvement Coordinator
Office of Public Affairs (P-19J)
EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

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birds and lowered reproductive success in adults. Also, it appears that PCB contamination causes abnormal behavior in adult Forster's terns.

- According to the recent bird injury report prepared by the U.S. Fish and Wildlife Service (FWS), PCBs have most likely resulted in reduced reproductive success and embryonic deformities in double-crested cormorants.
- The same report shows that bald eagles nesting near Green Bay are contaminated with PCBs, and that PCBs, DDE, or a combination of the two chemicals have caused reduced reproductive success.
- Walleyes from Green Bay have higher incidences of liver tumors and pre-cancerous lesions (called FCAs) than walleyes from uncontaminated waters. According to the FWS report, "The high levels of PCBs measured in walleye tissues and the known carcinogenic effects of PCBs suggest that the elevation of hepatic FCA and tumors are strongly associated with PCB exposure."

Deformities and nesting failures among odd-sounding birds like Forster's terns and double-crested cormorants may not seem like a serious problem. But virtually all of the fish and fish-eating birds of the Lower Fox and Green Bay are contaminated with PCBs to some extent. What we don't know is whether the documented problems are the only ones, or just the tip of the iceberg.

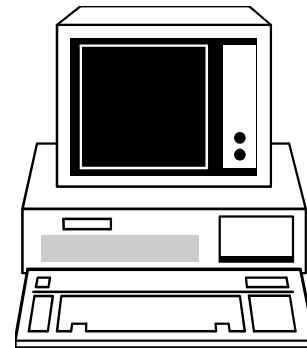
Check out these web sites:

<http://www.dnr.state.wi.us/org/water/wm/lowerfox/>

<http://www.epa.gov/region5/foxriver/>

<http://www.fws.gov/r9dec/nrdar/nrdamain.html>

<http://www.fws.gov/r3pao/nrda/>



Information Available at Local Libraries

The Intergovernmental Partners invite the public to review technical reports, fact sheets and other documents related to the Lower Fox River cleanup at information repositories set up in the reference sections of the following local libraries. Information repositories at the public libraries in DePere, Kaukauna, Little Chute, Neenah, and Wrightstown have been discontinued. However, binders containing fact sheets will be mailed to and maintained at these locations as well as at the repositories listed below.

- Appleton Public Library, 225 N. Oneida St., Appleton, WI; 920-832-6170
- Brown County Library, 515 Pine St., Green Bay, WI; 920-448-4381, ext. 394
- Door County Library, 104 S. Fourth Ave., Sturgeon Bay, WI; 920-743-6578
- Oneida Community Library, 201 Elm St., Oneida, WI; 920-869-2210
- Oshkosh Public Library, 106 Washington Ave., Oshkosh, WI; 920-236-5200



Prepared by the Fox River Intergovernmental Partnership: Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Menominee Indian Tribe of Wisconsin, Oneida Tribe of Indians of Wisconsin, and National Oceanic and Atmospheric Administration. Supporting agencies include the Wisconsin Department of Health and Family Services, the U.S. Agency for Toxic Substances and Disease Registry, and the U.S. Army Corps of Engineers.

Disclaimer: The opinions expressed in these articles are solely those of the authors and are not necessarily shared by all members of the Fox River Intergovernmental Partnership.

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Fox River Current is published bimonthly by the Fox River Intergovernmental Partnership. Its purpose is to provide up-to-date information about cleanup and restoration efforts on the Lower Fox River. Call Greg Swanson at (608) 264-6024 to request a subscription or alternative format. Feedback on articles and ideas for future issues are welcome. Send comments to Greg Swanson, Fox River Current, DNR, CE/6, P.O. Box 7921, Madison, WI 53707 or email <swansg@dnr.state.wi.us>



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